



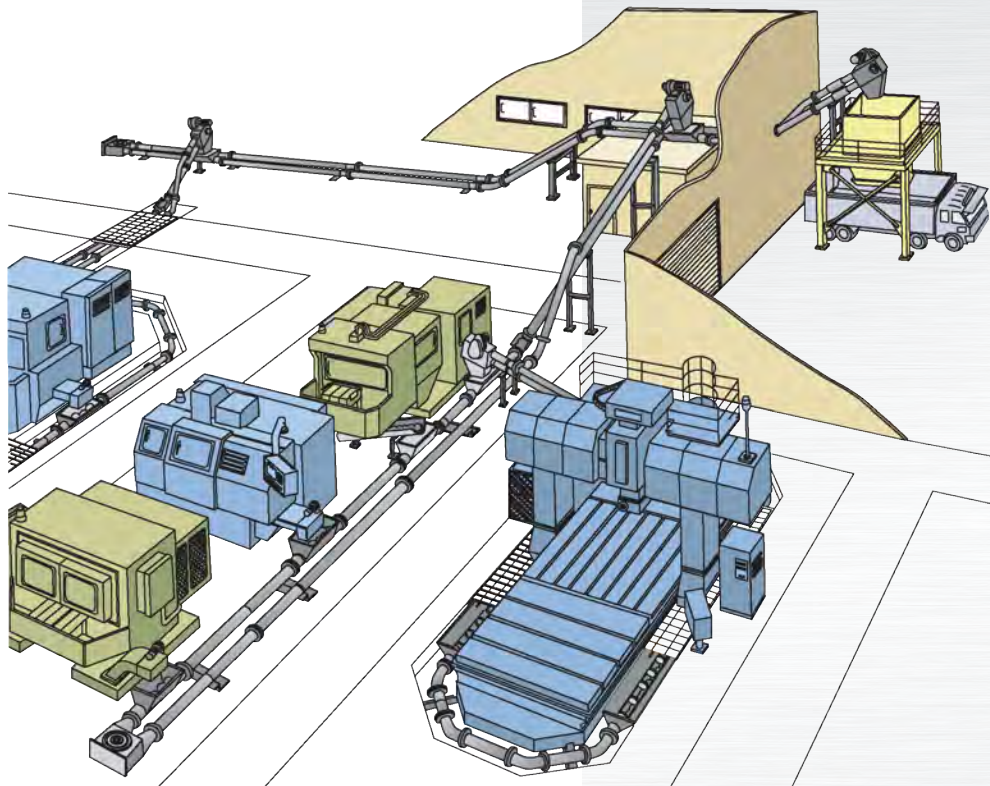
TURBO 3D CHIP CONVEYOR

CENTRAL PROCESSING CHIP CONVEYOR

Metal Chips

Fines

Other Materials



YOUR "ONE-STOP-SHOP"
FOR MACHINE-TOOL PERIPHERALS



Automatic Chip Handling While Promoting Safety and Cleanliness

The Turbo 3D chip conveyor is an enclosed system using an endless chain with attached blades to pull materials through a sealed pipe to a storage hopper. Cutting fluid or other liquids can be recovered at the lowest pipe level.



Installed With ease Readily Relocated

Some central material delivery systems are difficult to install and almost impossible to alter or relocate. The Turbo 3D system overcomes these obstacles.

The Turbo 3D system can be arranged to fit almost any plant layout and it can be rearranged easily when machines are added or relocated. Transport pipes are routed freely for minimum interference with machines and plant structure. Its fully enclosed piping can go up and down and around the machinery it services and can avoid other obstacles in the shop.

The chip conveyor can be arranged to circle around machines it services, collecting chips or other material delivering them to a storage hopper. Or a line-type layout can be used, with the conveyor going between, around and over the machines. Material can be delivered directly to an outdoor hopper for truck or railcar loading, providing automatic continuous operation.



Simple Construction = Easy Application and Maintenance

The design of any centralized bulk material handling system needs to be easy to maintain and service.

To make the system easy to route, straight and bent (corner or elbow) pipe is used. The total pipeline is constructed by combining these different types. To control wear at the corners, special steel linings are used. For added ease of maintenance, all corners are flanged for easy removal and replacement. For extremely tight corners or very abrasive materials, roller corners are available.



Designed to Meet Various Machine Needs

Bulk material movement varies greatly from application to application. The Turbo 3D system is designed to handle a wide variety of loads.

The Turbo 3D system offers 4, 6, 8 and 10 inch diameter pipe. Each system is custom designed, up to 600 feet maximum length, 3-dimensional routing in any direction and is easy to reconfigure as needs change. For systems longer than the maximum length, several systems can be daisy chained together. This system can be located in ground, at ground or above ground and in any combination for maximum layout flexibility.

When the Turbo 3D chip conveyor is used in combination with special discharge chutes, the Turbo 3D system can isolate different types of chips for separate disposal and direct selected chips to different areas.



Eliminating Indirect Labor While Improving Safety and Housekeeping

Chip disposal on a plant wide basis requires major indirect labor, causes internal traffic and drayage issues and poses housekeeping and safety problems.

The Turbo 3D chip conveyor eliminates the need for costly fork lifts, drums, hoppers and the labor to service them.

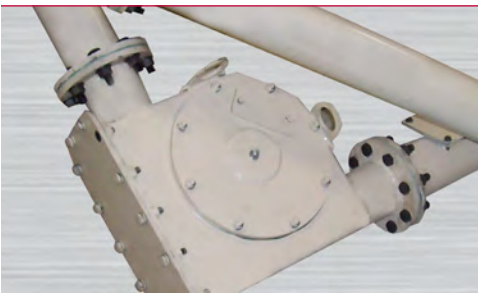
The movement of fork trucks and hoppers in tight spaces can be hazardous. Hard to handle materials can pose a risk to workers and lead to spilled loads and messy work areas. The Turbo 3D ends the risks and costs associated with this disposal.



Customization to Improve Productivity

Many applications, such as stringy or bushy material, coolant soaked chips or multiple material types make it difficult to apply a central system.

At the lowest point of the system, coolant recovery tanks are easily installed. Simple separating devices are designed to handle multiple material types. Additional features are available to solve these common application problems. Chip crushers are applied to break up stringy or bushy chips prior to entering the Turbo 3D system.



Extreme Applications

LNS has a solution to centrally convey extremely abrasive chips. The Turbo 3D design has the flexibility to specify hardened pipe for these tough applications. Elbow wear is also a major concern with these types of chips. Roller elbows are used to reduce the friction in these high wear areas.



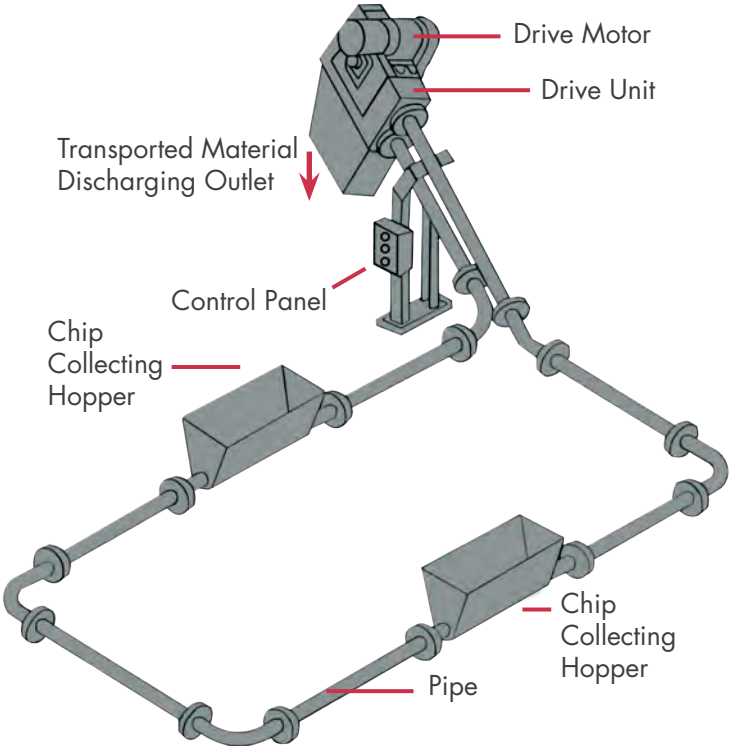
TURBO 3D CHIP CONVEYOR

TECHNICAL SPECIFICATIONS

*Designed to meet your requirements

System Variables:
• 4, 6, 8 & 10 inch diameter systems
• Each system is customized designed, up to 600 feet maximum length
• Turbo 3D (dimensional) routing - in any direction
• Above, at or below grade

Special Equipment:
To handle difficult conditions found in some applications, special equipment can be included in the Turbo 3D System
• Crushers to break long stringy chips
• Coolant recovery systems
• Easily re-configurable if machines are moved or new machines are added
• Separators for different chip materials



YOUR "ONE-STOP-SHOP" FOR MACHINE-TOOL PERIPHERALS

LNS provides a full range of barfeeders, chip conveyors, coolant management systems, air filtration systems, and workholding systems that is second to none on the market. We are known in the industry for the solid experience we have gained over several decades in an exceptionally wide range of applications, our excellent customer service, and our technical support. This support is ensured by highly qualified technicians who are available throughout North America.



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Facilities covered by this mark have been evaluated to international quality assurance standards by UL DQS Inc.